X-SERIES

5.8G First Person View 6-Axis Gyro Quadcopter

INSTRUCTION MANUAL

Introduction

- Quad-rotor design insures more stable and powerful performance and make all kinds of 3D action more easier.
- Headless mode and one key return are available.
- New designed structure makes assembly and maintenance easier.
- Adopting 2.4G auto connection technology, scores of model can be played at the same time.
- Equipped with the newest 6-axis gyro control system, this model has the characteristics of stable flight and easy operation.
- Full charged battery can support 5 minutes steady flight.
- Newly increased 5.8G image transmission & built-in LCD screen atop the remote control.

Technical parameter of the model

Fuselage length: 77mm	Gross weight: About 31g
Overall height: 36mm	Battery: Li-polymer 3.7V 250mAh
Main rotor diameter: 37mm	Charging time: About 60 minutes
Motor: Coreless motor	

Product/spare parts included in this packaging

Description	QTY (pc)	Description	QTY (pc)	Description	QTY (pc)
Model	1	protecting frames	4	Card reader	1
Remote control	1	USB charger	1	TF Card	1
Manual	1	Blades	4		

Thank you for purchasing this product. Please read this manual carefully before use and retain it for future reference.

Safety guidelines

- This product is not a toy. It is not applicable for children who are under 14 years old.
- Please read this instruction manual carefully before playing and operate the product according to the manual.
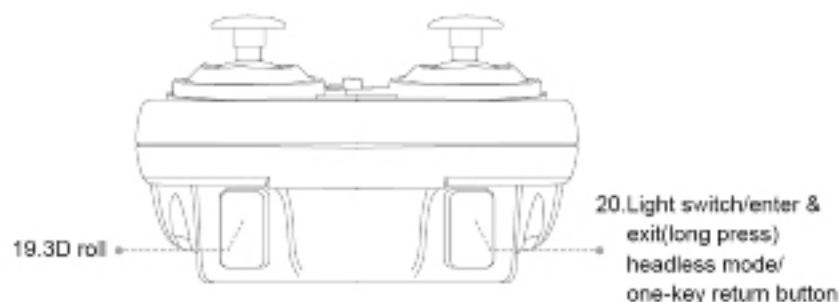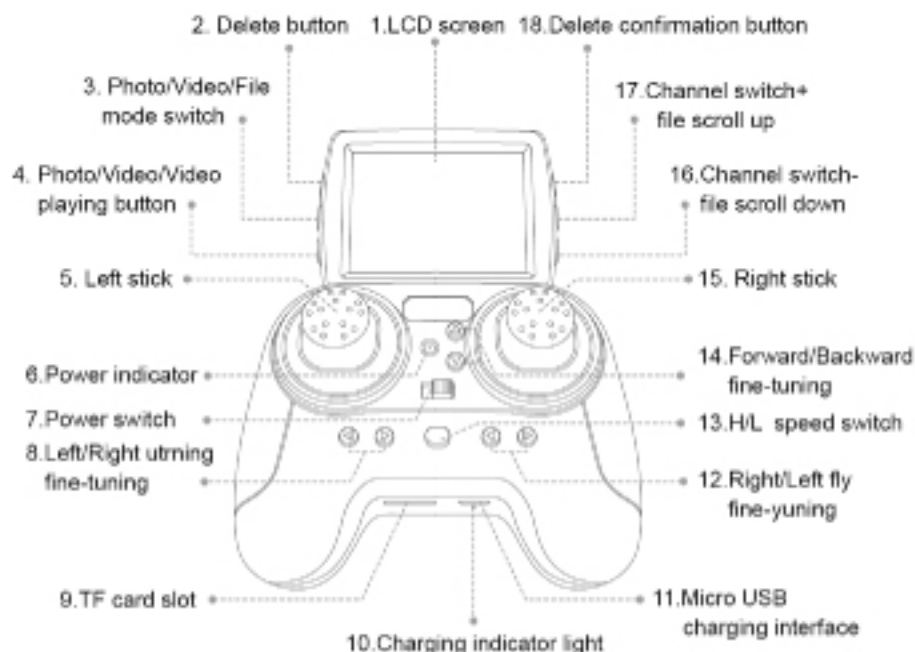
- The users are in full charge of proper operating the model. The manufacturer and dealers disclaim all responsibility for the damage caused by misuse.
- Keep the small accessories away from the kids to avoid accident.
- Keep batteries away from fire or high temperature environment.
- When flying the model, keep it 1~2 meters away from user or others to avoid injury due to collision.
- Not to decompose or modify the product which may cause malfunction or accident.
- Fly the model within your eye vision for easy and safety control.
- Need adult supervision when this model is being played by children.
- Rechargeable batteries are to be removed from the toy before being charged.
- Rechargeable batteries are only to be charged under adult supervision.
- The supply terminals are not to be short-circuited.
- The USB charing line to be used with the product should be regularly examined for potential hazard,such as damage to the cable or cord, plug,enclosure of other parts and that in the event of such damage,the product must not be used until that damage had been properly removed.

The LCD remote controller

Main features of the remote controller

- Adopt microcomputer control remote controller system and 2.4G auto connection technology, scores of copters can be played at the same time without any interference.
- Control the function of upward,downward,forward,backward, leftward,rightward,turn left, turn right and 3D flips & roll of the copter.

## Sketch and function switches of the remote controller

2. Delete button   1.LCD screen   18.Delete confirmation button

3. Photo/Video/File mode switch

17.Channel switch+ file scroll up

4. Photo/Video/Video playing button

16.Channel switch- file scroll down

5. Left stick

15. Right stick

6.Power indicator

14.Forward/Backward fine-tuning

7.Power switch

13.H/L speed switch

8.Left/Right utrning fine-tuning

12.Right/Left fly fine-yuning

9.TF card slot

11.Micro USB charging interface

10.Charging indicator light

19.3D roll

20.Light switch/enter & exit(long press) headless mode/ one-key return button

No.	Function switch	Function description
1	LCD screen	Display real-time image taken by the camera.
2	Delete button	In file mode, long press this button to enter into remove state.
3	Photo/Video/File mode switch	The mode will change accordingly with each different press.
4	Photo/Video/Video playing button	Photo mode: One press means one photo has been taken. Video mode: Press this button to start shooting; press again to finish shooting. File mode: Select your video and press this button to watch the video.
5	Left stick	Upward/Downward, turn left/turn right.
6	Power indicator	The indicator light keeps blinking slowly: The transmitter is not activated. The indicator light keeps flashing rapidly: The transmitter is sending out connection signal to the model. The indicator light keeps on without blinking: The transmitter is ready for controlling the flight. Indicator light slowly flashes: The model is in headless mode.

No.	Function switch	Function description
7	Power switch	It controls the power source of the transmitter. Slide the power switch to the "ON" position, the transmitter is powered on; slide the power switch to the "OFF" position, the transmitter is powered off.
8	Left/Right utrning fine-tuning	Left/Right utrning fine-tuning.
9	TF Card slot	Insert the TF card inside and video & photo files can be stored in the TF card.
10	Charging indicator light	while the remote control is charging, the light is on. Once the remote control is full charged, the light turns off.
11	Micro USB charging port	It helps to tune the model's sideward flight.
12	Right/Left fly fine-yuning	Right/Left fly fine-yuning.
13	H/L speed switch	There are 2 flight modes of the model: Low speed and high speed.
14	Forward/Backward fine-tuning	Forward/Backward fine-tuning.
15	Right stick	Forward/Backward,leftward/rightward.
16	Channel switch - file scroll down	Channel switch: The channel will decrease accordingly with each different press. File scroll down: In file mode, press this button to scroll down the file.

No.	Function switch	Function description
17	Channel switch + file scroll down	Channel switch: The channel will increase accordingly with each different press. File scroll up: In file mode, press this button to scroll up the file.
18	Delete confirmation button	In remove state, press this button to delete the selected file.
19	3D roll	Keep pressing the 3D rolling button and push the forward/backward and the leftward/rightward control stick to the edges to perform the roll actions accordingly.
20	Light switch/enter & exit(long press) headless mode/ one-key return button	1.Short press to turn on or turn off the LED searching light of the model. 2.Enter/exit headless mode: When the model completes signal connection with the remote control, long press this button for 2 seconds. There will be beeps sounds; the indicator light of the drone changes from constant "on" to flashing and the model enters into headless mode. Long press this button again for about 2 seconds, there will be beeps sounds ;the indicator light of the model change from flashing to contact on and the model exits headless mode. 3.When the model is in headless mode, press the one key return button to get back the model. Press this button again or push the forward/ backward control stick to exit one key return function.

How to charge the remote control battery

Insert the charging interface of the USB charging cable to the USB charging outlet and plug the other end of the charging cable into the micro USB charging port.(Pic.1) The charging indicator light will be on while charging is proceeding and turn off once the remote control is full charged. Full charging time is around 2 hours.
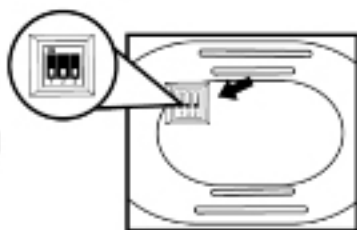

Pic.1
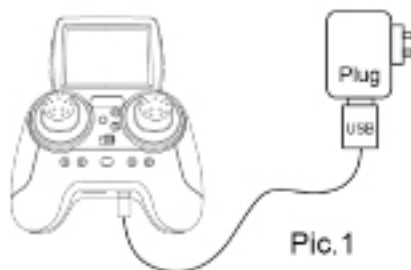
The model

Major parts of the model

Rotor blade

Motor

Camera
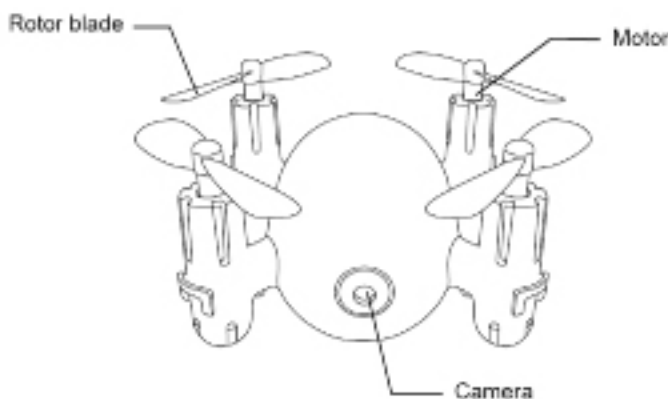
Choose 5.8G image transmission channel

There are 8 channels for the 5.8G image transmission of the remote control. Choose the matching channel as per the coding switch location of the model.

Coding switch location

Remote control channel	CH1	CH2	CH3	CH4	CH5	CH6	CH7	CH8
Model coding switch location								

The coding switch & its corresponding channel.

How to charge the model's battery

Disconnect the battery wire plug from the power supply wire plug ; then, connect the battery wire plug with the USB charging cable plug and insert the USB interface to any USB charging outlet to charge the battery. The USB indicator light is on while charging is proceeding and turns off once the battery is full charged.
Full charging time is around 60 minutes.

Plug

USB
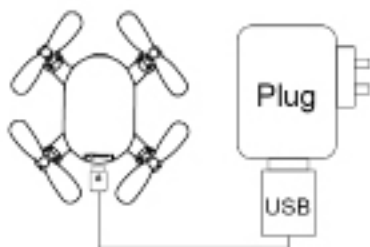
NOTE:Battery should be full charged before storing.

Install and remove the protection frame

1. Insert the foot of the model into the base of the protection frame and push up the base until the buckles fixed.

2. Slightly break apart the buckles and pull down the base until it is removed from the foot of the model.

Preparation for flight

1. Turn Pull the left control stick to bottom and turn on the remote control,push up the left control stick from bottom to the top and return the control stick to the bottom. There will be beeps sounds. The indicator light of the remote control is flashing quickly and sending out connection signal to the model.
2. Insert the battery into the battery compartment of the model and connect the battery wire plug with the power supply wire plug. The indicator light of the model is flashing quickly. It is detecting the gyro and receiving signal from the remote control. Put the model to the ground or any flat & still surface. About 4 seconds later, the model indicator light stops flashing and keeps constant on and the model is ready for flight.

Notes:
1. Please make sure that the model is put on the ground or any flat & still surface. If the model inclines, it will bring unsatisfactory hovering performance once the model takes off.

2.Please turn on the remote control before turn on the model.
3.Please set the connection one by one. Otherwise, it may result
   in connection failure or misconnection.

Model calibration

Please perform calibration for the first flight or when the flight
performance is poor, because poor flight performance (except
vibration created by camera mount) or complete failure may
result from an old calibration. The calibration method is as follows:

1.Put the model on the ground or any
   flat & still surface.
2.Pull down both of the control sticks
   to the bottom right corner for 2
   seconds. The indicator light
   of the drone will keep flashing quickly
   and then keeps constant "on". It
   means calibration is finished now.

Orientation confirmation

Head of the model

Rotor blade A
(Rotating motor)

Rotor blade B
(Reversing motor)

Left

Right

Rotor blade B
(Reversing motor)

Rotor blade A
(Rotating motor)

Tail of the model
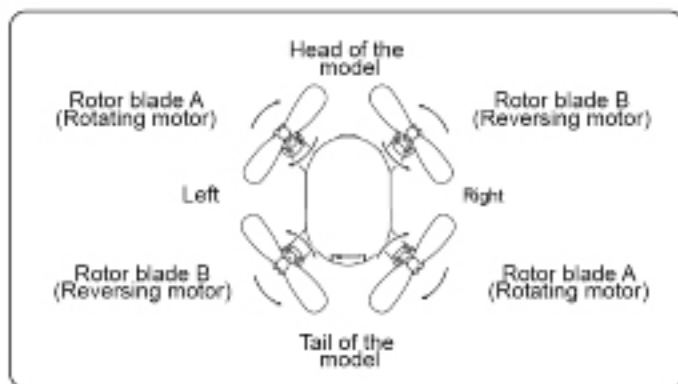
Power on the model and make sure that the rotor blades are installed at the right position. Rotor blades A at the left-front and the right-rear corner should rotate clockwise; rotor blades B at the right-front and the left-rear corner should rotate counter clockwise.

Trimmer functions

1. If the model keeps moving forward/backward even there is no control signal given, users may adjust the forward/backward trimmer at the remote control interface to keep the model balanced.
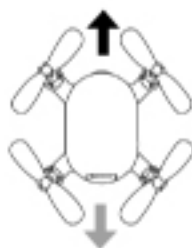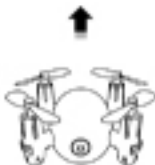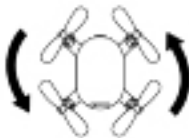

2. If the model keeps moving leftward/rightward even there is no control signal given, users may adjust the leftward/rightward trimmer at the remote control interface to keep the model balanced.
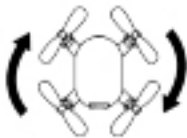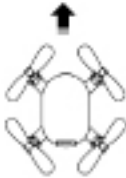
3. If the model keeps spinning even there is no control signal given, users may adjust the left/right turning trimmer at the remote control interface to keep the model balanced.
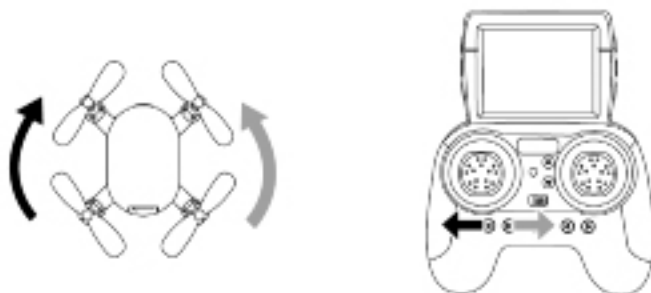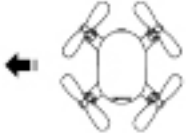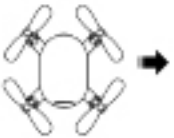
Operating

Upward		Push up the throttle control stick, the rotation speeds of the mains rotors are increasing and the model ascends accordingly.	
Downward		Push down the throttle control stick, the rotation speeds of the mains rotors are decreasing and the model descends accordingly.	
Turn left		Turn the left/right turning control stick to the left, the model will turn left.	

|			
Turn right		Turn the left/right turning control stick to the right, the model will turn right.	
Forward		When the model is flying, push up the forward/backward control stick, the model will move forward.	
Backward		When the model is flying, push down the forward/backward control stick, the model will move backward.	
Leftward flight		Turn the sideward flight control stick to the left side, the model will fly leftward.	
Rightward flight		Turn the sideward flight control stick to the right side, the model will fly rightward.	

Headless mode

Enter into headless mode

When the model completes signal connection with the remote control, long press this button for 2 seconds. There will be beeps sounds; the indicator light of the drone changes from constant "on" to flashing and the model enters into headless mode.

Exit headless mode

When the model is flying in headless mode, long press this button again for about 2 seconds, there will be beeps sounds ;the indicator light of the model change from flashing to contact on and the model exits headless mode.
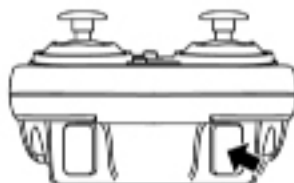
Flight direction control in headless mode

- When checking up on the flight direction of the model, set the model nose right ahead and tail facing the player's, at this time, the model's nose is pointing forward; this direction will be constantly considered as "forward" when forward signal is given from the remote control, no matter where the model nose is pointing to. That is to say, the player's straight front side is defined as "forward"; the player's back side is defined as "backward", the player's left side is defined as left; the player's right side is defined as right.
- When the model is flying in headless mode, player should keep facing the forward direction. Otherwise, the model will be out of control. The model control is showed as below:

Push up the forward/ backward control stick, the model will fly forward, away from player.

Push down the forward/ backward control stick, the model will fly backward, towards player.

Turn left the sideward flight control stick; the model will fly to the left side of player.

Turn right the sideward flight control stick, the model will fly to the right side of the player.

Turn right the turning control stick; the model will turn to the left side of the player.

Turn left the turning control stick; the model will turn to the right side of the player.

One key return

When the model is flying in headless mode, press one key return button, the model will fly towards player. Press the one key return button again or operate the forward /backward control stick, the model will exit the one key return function.

Remarks

●Flight direction proof is needed when the model is going to fly in headless mode. When checking up on the flight direction, the model should be set right ahead and tail facing the player; the player should face the direction where the model nose is pointing to. Player should stand in the same direction when playing the model.

●When the model is flying in headless mode, if the flight direction is in consistent with the player's operating direction or there's direction deviation, please stop playing and carry out the flight direction proof action again.

Trouble shooting

	phenomenon	reason	solution
1	The lights are flashing quickly.	Gyro of the model is under signal detecting condition.	Set the model to any flat surface.
2	The lights are flashing on twice and flashing off once.	The model is not received the signal from the remote control or signal connection is interrupted.	For absence of signal, activate the remote control for the signal connection.For signal interruption,turn off the remote control and turn it on again.
3	The lights are flashing on and off.	The model is underpowered.	Charge the battery or change another full charged battery.
4	The model is shaking fiercely.	The rotor blade is out of shape.	Change the rotor blades.
5	No image is displayed on the screen.	The remote control and the model are not in the same channel.	Adjust the remote control and the model to the same channel. Please turn to Page 8 "Choose 5.8G image transmission channel" for reference.

Note:

a) Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

b) This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

— Reorient or relocate the receiving antenna.
— Increase the separation between the equipment and receiver.
— Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
— Consult the dealer or an experienced radio/TV technician for help.